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No. Delivery	Acceptance Clerk Initials	COD Fee <input type="checkbox"/>
<input type="checkbox"/> Weekend <input type="checkbox"/> Holiday <input type="checkbox"/>		Insurance Fee <input type="checkbox"/>
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**FROM:** (PLEASE PRINT)

**Jeffrey L. Jeffery, IP Counsel**  
**SCHLUMBERGER TECHNOLOGY CORPORATION**  
PO Box 2175  
Houston, TX 77252-2175

PHONE

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**EK PATENT APPLICATION  
ASSISTANT COMMISSIONER FOR PATENTS**  
WASHINGTON DC 20231

**281-0787-DI**

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Sugar Land, Texas 77478  
(281) 285-8500

**Schlumberger**

Assistant Commissioner for Patents  
Box CPA  
Washington, DC 20231

Docket No.: 24.0787-D1  
Total Pages: 2  
First Named Inventor: Bruno Luong et al.

**CONTINUED PROSECUTION APPLICATION (CPA) REQUEST TRANSMITTAL**

This is a request for a [ ] continuation or [ X ] divisional application under 37 CFR 1.53(d), (Continued Prosecution Application (CPA)) of prior application number 09/033,965 filed on March 3, 1998 entitled *Method and Apparatus for a 1 of N Signal*.

- 1      [ ] Enter the unentered amendment previously filed on \_\_\_\_\_ under 37 CFR 1.116 in the prior nonprovisional application.
- 2      [ X ] A preliminary amendment is enclosed. (2 pp.)
- 3      [ ] This application is filed by fewer than all the inventors named in the prior application, 37 CFR 1.53(d)(4).
  - a.      [ ] Delete the following inventor(s) named in the prior nonprovisional application:
  - b.      [ ] The inventor(s) to be deleted are set forth on a separate sheet attached hereto.
- 4      [ ] Information Disclosure Statement (IDS) is enclosed:
  - a.      [ ] PTO-1449
  - b.      [ ] Copies of IDS Citations.
- 5      [ ] A new power of attorney or authorization of agent (PTO/SB/81) is enclosed.
- 6      [ ] Other \_\_\_\_\_

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CLAIMS AS FILED				
(1) FOR	(2) NUMBERS FILED	(3) NUMBER EXTRA	(4) RATE	(5) TOTAL
BASIC FEE				\$710
TOTAL CLAIMS	15-20=		x\$18	
INDEPENDENT CLAIMS	3-3=		x\$80	
ADDITIONAL FEE FOR FILING ONE OR MORE MULTIPLE DEPENDENT CLAIMS \$270				
TOTAL FILING FEE				\$710
RECORDING FEE	[ ] SEE ATTACHED PTO 1595 [ ] ASSIGNMENT TO BE SUBMITTED LATER			

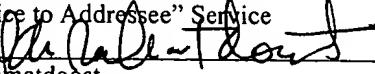
Please send all correspondence to the following correspondence address: Office of Patent Counsel, Schlumberger Oilfield Services, P.O. Box 2175, Houston, TX 77252-2175. Our Customer Service No. is 23718.

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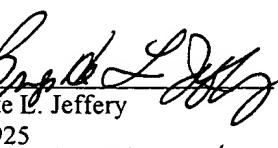
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Respectfully Submitted,

Signature:   
Name: Brigitte L. Jeffery  
Reg. No. 38,925

Date: Apr. 1 2001

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In re Application of:** )  
Bruno Luong, et al. )      **Attorney Docket No.:** 24.0787-D1

**Serial No.:** )      **Group Art Unit:** 2862

**Filed:** )      **Examiner:** L. Arana

**Title:** NUCLEAR MAGNETIC RESONANCE )  
APPARATUS AND METHOD FOR )  
GENERATING AN AXISYMMETRIC )  
MAGNETIC FIELD HAVING STRAIGHT )  
CONTOUR LINES IN THE RESONANCE )  
REGION )

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, DC 20231

Dear Sir:

Prior to examining the present application, the Applicant requests that the Examiner enter the following amendment:

**In the Specification:**

On page 1, please insert --This is a division of U. S. Patent Application Serial No. 09/033,965 filed March 3, 1998. --

**In The Claims:**

Please cancel claims 13-42.

Please add the following claims:

--43. An apparatus for generating a magnetic field, comprising:

a) a drilling means for drilling a borehole into the formation;

- b) a means for carrying drilling fluid through the drilling means;
- c) a measuring means, connected to the drilling means, for making nuclear magnetic resonance measurements while the borehole is being drilled, the measuring means comprising:
  - i) a means for producing a plurality of axisymmetric static magnetic fields through the drilling means and into the formation at a plurality of regions of investigation such that the contour lines generated by the static magnetic fields are substantially straight in the axial direction at a depth of investigation where the nuclear magnetic resonance measurements are obtained, comprising:
    - a) an axially magnetized upper magnet;
    - b) an axially magnetized central magnet;
    - c) an axially magnetized lower magnet;
  - ii) an antenna for producing an oscillating magnetic field in the formation;

wherein the upper magnet and central magnet generate a static magnetic field having a high gradient at a first region of investigation.

44. The apparatus of claim 43 wherein the lower magnet and central magnet generate a static magnetic field having a high gradient at a second region of investigation.

45. The apparatus of claim 43 wherein the lower magnet and central magnet generate a static magnetic field having a low gradient at a second region of investigation. --

Respectfully submitted,

Date: April 23, 2001

By: Brigitte L. Jeffery  
Brigitte L. Jeffery  
Registration N° 38,925

Schlumberger Technology Corporation  
200 Gillingham Lane  
Sugar Land, Texas 77478  
(281) 285-7067

Date: April 24, 2001

Attorney Docket No.: 24.0787-D1

On the date stamped hereon, the following was received in the United States Patent Office:

Application papers of: Bruno Luong et al.

Title: Nuclear Magnetic Resonance Apparatus and Method for Generating an Axisymmetric Magnetic Field having Straight Contour Lines in the Resonance Region

Serial No.: \_\_\_\_\_

1) *Continued Prosecution Application (CPA) Request Transmittal & duplicate (2 pp.)*

2) *Preliminary Amendment (2 pp.)*

3) *Authorization to charge Deposit Account*

Express Mail No. EK 802865942 US

PR 5/8/01

Date: April 24, 2001

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